

CLAIM AMENDMENTS

1. (Currently Amended) A method of fabricating a semiconductor device comprising treating a wafer in a chamber with ~~an etching~~ hydrofluoric (HF) gas, a first part of the wafer having a first etching property ~~for the etching~~ relative to the HF gas and a second part of the wafer having a second etching property, different from the first etching property, ~~for relative to the etching~~ HF gas, the method including:

supplying the ~~etching~~ HF gas into the chamber only during a first time period, ~~wherein the etching gas is hydrofluoric acid gas,~~

assuming that a time between introduction of the ~~etching~~ HF gas into the chamber and starting of etching of the first part of the wafer is a first starting time, and a time between introduction of the ~~etching~~ HF gas into the chamber and starting of etching of the second part of the wafer is a second starting time, longer than the first starting time, supplying the ~~etching~~ HF gas for ~~the~~ a first time period, which is longer than the first starting time but shorter than the second starting time, wherein the first starting time and the second starting time correspond to ~~a time required for respective time periods in which water is generated by reaction of the etching~~ HF gas with the first part and the second part, respectively, ~~to reach an amount in amounts at which etching rate abruptly increases~~ rates of the first part and the second part increase, and

evacuating the etching gas from the chamber.

2. (Previously Presented) The method of fabricating a semiconductor device according to claim 1, wherein the time difference between the first starting time and the second starting time is not more than about 5 seconds.

3. (Currently Amended) The method of fabricating a semiconductor device according to claim 1, further comprising:

forming a gate insulating film on the semiconductor substrate, and

forming a gate electrode on the insulating film, wherein

the first part of the wafer contains a reaction product generated before forming the gate electrode, covering the gate insulating film and the gate electrode, and

~~the second part includes said gate insulating film, and~~

~~the etching gas includes hydrofluoric acid.~~

4. (Currently Amended) The method of fabricating a semiconductor device according to claim 1, including introducing a reaction accelerating gas into the chamber before supplying the ~~etching~~ HF gas, for reducing the first starting time.

5. (Currently Amended) The method of fabricating a semiconductor device according to claim 4, including alternately introducing the reaction accelerating gas and the ~~etching~~ HF gas.

6. (Currently Amended) The method of fabricating a semiconductor device according to claim 4, including continuously introducing the reaction accelerating gas into the chamber after starting supplying of the ~~etching~~ HF gas into the chamber.

Claim 7 (Canceled).

8. (Previously Presented) The method of fabricating a semiconductor device according to claim 1, further comprising:

forming a conductive layer on a gate insulating film on the semiconductor substrate,

forming a layer for defining a mask on the conductive layer,
etching the conductive layer through a mask of the layer for defining a mask, thereby forming a gate electrode, and

removing the layer for defining a mask remaining on the gate electrode after formation of the gate electrode, wherein

the first part of the wafer includes the layer for defining a mask,
the second part of the wafer includes the gate insulator film, and
hydrofluoric acid gas is supplied as the gas for etching to remove the layer for defining a mask.

9. (Currently Amended) The method of fabricating a semiconductor device according to claim 8, including repeatedly supplying the ~~etching~~ HF gas.

10. (Currently Amended) The method of fabricating a semiconductor device according to claim 9, including evacuating the chamber, and, subsequently, alternately supplying the ~~etching~~ HF gas into the chamber and evacuating the chamber.

Claims 11-20 (Cancelled).

21. (Currently Amended) The method of fabricating a semiconductor device according to claim 1, including repeatedly supplying the ~~etching HF~~ gas into the chamber only during respective sequential first time periods separated by respective second time periods.

22. (Currently Amended) The method of fabricating a semiconductor device according to claim 21, including evacuating the ~~etching HF~~ gas from the chamber only during the second time periods.

23. (Currently Amended) The method of fabricating a semiconductor device according to claim 21, including continuously evacuating the ~~etching HF~~ gas from the chamber during the first and second time periods.

24. (Previously Presented) The method of fabricating a semiconductor device according to claim 1, including introducing a reaction accelerating gas into the chamber during a second time period, wherein the second time period immediately precedes the first time period.

25. (Currently Amended) The method of fabricating a semiconductor device according to claim 24, including repeatedly supplying the reaction accelerating gas during respective second time periods, supplying the ~~etching HF~~ gas during respective first time periods immediately following corresponding second time periods, and evacuating the ~~etching HF~~ gas and the reaction accelerating gas from the chamber only during respective third time periods, each third time period immediately following a corresponding first time period.

26. (Currently Amended) The method of fabricating a semiconductor device according to claim 24, including repeatedly supplying the reaction accelerating gas during respective second time periods, supplying the ~~etching HF~~ gas during respective first time periods immediately following corresponding second time periods, and evacuating the ~~etching HF~~ gas and the reaction accelerating gas from the chamber continuously during the first and second time periods.

27. (Currently Amended) The method of fabricating a semiconductor device according to claim 4, wherein the reaction accelerating gas is ~~one~~ selected from the group consisting of water vapor, oxygen, ozone, nitrogen, helium, neon, and an alcohol.

28. (Currently Amended) The method of fabricating a semiconductor device according to claim 24, wherein the reaction accelerating gas is ~~one~~ selected from the group consisting of water vapor, oxygen, ozone, nitrogen, helium, neon, and an alcohol.

29. (Currently Amended) The method of fabricating a semiconductor device according to claim 1, wherein etching of the first part of the wafer occurs during the first time period ~~corresponds to a time during which etching is conducted~~.